

WE CLAIM:

1. A method for screening drugs or biological agents which affect proliferation, differentiation or survival of human neural stem cells, comprising:
 - (a) transplanting said human neural stem cells to a first locus of the CNS of a non-human mammal selected from the group consisting of rats and mice;
 - (b) contacting said non-human mammal with at least one drug or biological agent, and
 - (c) determining if said at least one drug or biological agent has an effect on proliferation, differentiation or survival of said human neural stem cells.
2. The method of claim 1 wherein step (c) comprises determining the effects of said biological agent on differentiation of said human neural stem cells.
3. The method of claim 1 further comprising the step of inducing differentiation of said human neural stem cells prior to performing step (b).
4. The method of claim 1 wherein the effect of the at least one drug or biological agent on proliferation of the human neural stem cells determined by observing changes in size or number of the neurospheres.
5. A non-human animal useful for screening drugs or biological agents which affect proliferation, differentiation or survival of human neural stem cells, wherein the non-human animal is selected from the group consisting of rats and mice and wherein the non-human animal has human neural stem cells integrated into its CNS.
6. The non-human animal of claim 5, wherein the human neural stem cells are transplanted to a first locus of the CNS of the non-human mammal, wherein the transplanted neural stem cells migrate *in vivo* after implantation from the first locus to other anatomic sites for integration within the CNS of the non-human mammal following infusion of a mitogenic growth factor that

does not induce differentiation of the human neural stem cells at a second locus of the CNS, and wherein the implanted neural stem cells integrate into the parenchymal tissues at a local anatomic site in the non-human mammal.

7. A method for screening drugs or biological agents which affect proliferation, differentiation or survival of human neural stem cells, comprising:

- (a) contacting the non-human mammal of claim 5 with at least one drug or biological agent, and
- (b) determining if said at least one drug or biological agent has an effect on proliferation, differentiation or survival of said human neural stem cells.